3:Westermann E-5 (1910) 1912 FJ23 Shilluk FJ23

321 shaped iron instrument. The hole is made by holding the sharpened point of the iron on the piece of shell and rapidly revolving it between the palms of the hand. The pierced pieces are then rounded by crushing the edges against a stone with a cow's hoof.

281 Skins for wearing apparel, such as the hides of calves, goats, gazelles and other small animals are usually prepared by drying them first and dressing, then curing in ashes. After this they are stretched tight on poles stuck in the ground, and grease or oil is rubbed on them; then they are rubbed and worked for several hours, till they are soft, and the oil well worked into them. The hair is left on; a skin with a large amount of the hair gone would be considered very poor. The skin is worn with the hair on the outside.

283 Ropes are made from plant fibres, grass, and the leaves of the dom palm.

BOATS 501 Canoes are hollowed out of trees; this is, considering the poor tools they have, a very tiresome work, but the boats they make are fairly well; they are propelled by means of long sticks. A peculiar kind of boat or raft is made of the ambach tree; it is composed of a thick bundle of that pith-like, light cane tied together, turned up at the bows, and propelled by a paddle. These boats are so light that they are easily carried by one man.

[482]

MUSICAL INSTRUMENTS 534 281 322 Their musical instruments are small and large drums, a stringed instrument called *tom* and a wind instrument consisting in a cow's or antelope's horn; this is used in wars and in war-dances. The drums are logs of wood hollowed out and braced with skin; they are beaten either with the flat hand or with a stick. The *tom* is made by splitting in the middle a small section of a log and hollowing out the flat side a little. A piece of raw cow hide is stretched wet over this, and the flat side becomes the face of the instrument. A round stick some 18 inches long is fastened at each end. The ends of these two upright pieces pass through a cross-stick, which is large enough in diameter to allow them to pass this and still be quite strong. The holes are made in it by burning. The strings are made of tendons of animals or of the root bark of a certain plant. These are attached to the head, drawn across the face over a small wooden bridge, and wound about the cross-stick. They are then tightened, and the instrument is tuned by wettening these strings and tightening or loosening them about the crosspiece. They are tied to this stick, and by winding over themselves, keep from slipping.

POTTERY 323 [462] [415] [276 531] Pottery is the handicraft of women. They make pots of different kind and size, for carrying water, cooking, brewing beer; they also make pitchers, cups for drinking beer, heads for smoking pipes, etc. Gourds and calabashes are also much used household tools. The pipe-heads are made of clay; they are large and rather clumsy, and are generally ornamented with some simple designs,

3:Westermann E-5 (1910) 1912 FJ23 Shilluk FJ23

A Second Report on Housebuilding.

By R. W. Tidrick, of Doleib Hill.

Housebuilding among the Shullas[1] is a trade which comparatively few men learn, whether it is because apprentices are discouraged from learning it, or whether they do not want to learn, or cannot learn the trade well, I do not know. A well constructed tukl is neat and of really fine appearance. Dwelling houses are usually of the same size, conical in shape, walls of mud, sometimes reinforced with poles or corn stalks. The roofs are thatched with two kinds of grass. Family class prescribes which kind may be used in thatching the house.

Every adult member of the family as a rule has a part in construction. The women cut and carry in the grass and corn stalks and bring the water for mixing the mud for the walls. The men bring in the poles for the roof, make the rope, mix and carry the mud and do the real building of the house.

The material is usually collected for some time beforehand. Grass is cut and cocked, poles are brought from the timber and by wetting and heating are brought into the proper shape for rafters. Large circular bands for bracing the rafters and tying the thatch and grass to are made of withs of long coarse grass wrapped closely with rope. The rope for their use and for tying the grass down is made from a tall grass that has a long sheath. The grass is cut and brought in, and these sheaths are stripped off and after being soaked in water are bruised with clubs until the fiber comes apart easily. It is then dampened and twisted into rope. The rope maker sits on the ground holding the rope between his toes, and forms the rope by constantly adding new fiber and rolling the rope between the palms of his hands. It is made two-ply about one fourth of an inch thick.

The mud is prepared by mixing manure, ashes or fine broken dry grass with sandy earth. The mixing is done with the feet. The first step in construction is naturally the foundation. This is made by digging a shallow circular trench where the wall is to stand. The men carry the mixed mud in their hands, which must be quite stiff, and drop it in the trench. The builder forms it into the desired shape with his hands. A layer about six inches deep is put on at a time. But two or three layers a day are added. A little above the foundation an elliptical band of grass about three feet in depth is put in place to form the door. As the wall is built up the mud is built against this, which retains its form leaving the door the desired shape. Later the grass is removed. Toward the top the wall is flanged out like the mouth of a bell to receive the roof. Few houses have windows; when windows are made, they are scarcely six inches in diameter. In forming the roof the first step is the same as for the wall: a shallow circular trench is dug with the same circumference as the inner

[1] I. e. Shillukz.